

Table S1. Physiochemical parameters and detection by culture and qPCR in all matrices at all sites and sampling dates.

SITE	MONTH	<i>V. vulnificus</i> Concentration					qPCR (gene copies/ 100mL)	Physiochemical Characteristics			
		water	sediment	oyster	veg	water		TEMP (°C)	SALINITY (ppt)	D.O. (mg/L)	pH
BC	January	BDL	2.93	4.34	BDL	4.74		19.4	15	9.8	7.5
BC	February	2.63	4.34	BDL	3.62	4.27		19	17	9.9	7.5
BC	March	1.56	2.26	2.48	2.48	4.01		22.7	16	8.6	6.55
BC	April	BDL	2.93	2.66	BDL	BDL		22.7	16	8.6	6.55
BC	May	1.56	4.34	2.48	2.48	5.68		26.2	15	5.8	8.5
BC	June	3.66	2.6	2.09	2.34	6.74		29.7	21	12.1	8.4
BC	July	1.56	1.78	2.66	BDL	5.76		27.3	4	3.2	7.8
BC	August	BDL	2.53	1.78	2.88	5.08		26.6	2	7	7.9
BC	September	1.48	2.34	2.09	2.6	5.08		27.5	12	9.2	7.9
BC	October	1.96	2.09	2.34	1.86	4.55		24.1	1	9	7.41
BC	November	2.43	2.16	2.6	2.27	4.83		24	24	7.3	8.2
BC	December	1.87	BDL	BDL	BDL	4.94		20.8	15	9.7	7.8
BC	GEOMEAN	1.67	2.44	2.13	1.85	4.38					
BT	January	BDL	1.78	1.86	BDL	2.06		19.5	27	9.2	7.7
BT	February	1.56	1.78	BDL	1.86	BDL		20	27	8.9	7.8
BT	March	BDL	BDL	2.48	BDL	2.30		24	33	9	7.68
BT	April	BDL	BDL	2.26	BDL	BDL		29.9	30	9.8	7.8
BT	May	BDL	BDL	2.16	BDL	3.49		24.8	24	9.9	7.6
BT	June	2.63	1.86	2.26	2.16	3.49		28.4	25	4.3	8.3
BT	July	1.87	2.86	3.62	3.51	3.00		29	26	8.1	7.9
BT	August	1.97	2.85	2.28	1.86	5.97		29.2	20	8.5	8.2
BT	September	1.48	2.34	1.86	1.86	5.53		30	20	9.8	8.4
BT	October	BDL	2.26	2.51	1.86	5.32		27.7	20	7.5	8
BT	November	1.56	BDL	2.34	2.09	3.24		24.6	21	6.1	7.7
BT	December	BDL	BDL	1.86	BDL	2.42		21.5	25	7.6	7.9
BT	GEOMEAN	1.34	1.59	2.13	1.55	2.81					

BDL= below detection limit; BC= Bullfrog Creek site; BT= Ben T. Davis Beach site; GEOMEAN=calculated geometric mean

Table S1 (cont.). Physiochemical parameters and detection by culture and qPCR in all matrices at all sites and sampling dates.

SITE	MONTH	<i>V. vulnificus</i> Concentration					qPCR (gene copies/ 100mL)	Physiochemical Characteristics			
		Culture (log MPN/100mL or 100g)						TEMP (°C)	SALINITY (ppt)	D.O. (mg/L)	pH
water	sediment	oyster	veg	water							
FD	January	BDL	BDL	2.66	1.78	2.61		19.2	35	9.9	7.8
FD	February	BDL	2.09	BDL	BDL	1.82		21	34	8.6	7.9
FD	March	BDL	BDL	BDL	BDL	3.64		24.6	35	6.1	7.39
FD	April	BDL	BDL	BDL	BDL	BDL		29.5	35	8.9	7.7
FD	May	1.96	BDL	BDL	BDL	2.66		28	35	8.8	6.8
FD	June	1.96	1.86	1.86	2.73	3.01		33.4	35	8.5	8.3
FD	July	2.36	1.86	2.16	2.66	3.78		29	34	10.3	7.2
FD	August	1.96	BDL	2.26	BDL	3.91		28.7	35	8	7.6
FD	September	2.58	BDL	3.27	1.86	4.28		29.8	33	10	8.4
FD	October	BDL	2.17	BDL	1.78	2.40		26.6	33	7	7.21
FD	November	BDL	BDL	2.26	1.86	3.87		23	32	7	8
FD	December	BDL	BDL	BDL	BDL	1.91		19.5	35	6.4	7.9
FD	GEOMEAN	1.38	1.26	1.54	1.44	2.71					
SS	January	BDL	BDL	BDL	BDL	3.47		18.5	34	9.7	7.7
SS	February	BDL	BDL	BDL	BDL	3.44		20	33	7.8	7.8
SS	March	BDL	BDL	1.86	BDL	BDL		23	34	7.6	7.47
SS	April	BDL	BDL	BDL	BDL	BDL		28.6	35	8.9	7.7
SS	May	BDL	BDL	2.26	BDL	3.10		28.1	31	9.4	8.5
SS	June	1.56	BDL	3.18	2.34	3.90		29.6	34	7.9	7.7
SS	July	BDL	BDL	3.38	BDL	2.90		28.5	34	11.4	8.2
SS	August	1.96	BDL	BDL	2.16	3.54		27.9	32	8.6	8.1
SS	September	BDL	BDL	2.09	2.09	4.26		27.1	31	4.5	8
SS	October	BDL	2.66	BDL	BDL	BDL		25.6	32	5.2	7.54
SS	November	BDL	BDL	1.78	BDL	BDL		23.4	34	6.1	8.1
SS	December	BDL	BDL	BDL	BDL	3.16		19.4	33	7.3	7.9
SS	GEOMEAN	1.1	1.08	1.53	1.22	2.28					

BDL= below detection limit; FD= Fort De Soto site; SS= Sunshine Skyway site; GEOMEAN=calculated geometric mean

Table S1 (cont.). Physiochemical parameters and detection by culture and qPCR in all matrices at all sites and sampling dates.

SITE	MONTH	<i>V. vulnificus</i> Concentration					qPCR (gene copies/ 100mL)	Physiochemical Characteristics			
		Culture (log MPN/100mL or 100g)		water	sediment	oyster		TEMP (°C)	SALINITY (ppt)	D.O. (mg/L)	pH
UT	January	BDL	BDL	2.26	BDL	BDL		23.1	25	9.6	7.7
UT	February	1.56	1.78	BDL	1.86	2.88		20.9	21	7.5	7.7
UT	March	BDL	BDL	2.93	BDL	3.74		21	27	7.3	7.6
UT	April	BDL	BDL	2.66	1.86	4.47		29.6	30	7.5	7.2
UT	May	1.87	2.26	2.93	2.26	6.30		28	18	8.8	6.8
UT	June	1.48	3.27	2.75	2.66	3.76		33.4	25	8.5	8.3
UT	July	BDL	1.86	2.48	1.86	4.88		29	10	10.3	7.2
UT	August	BDL	BDL	BDL	BDL	4.79		28.7	5	8	7.6
UT	September	BDL	BDL	BDL	1.86	5.72		30.9	14	8.5	8.1
UT	October	BDL	1.86	2.48	BDL	5.45		29.5	5	7.5	7.25
UT	November	1.96	1.86	2.48	BDL	4.25		23.8	20	7.5	8
UT	December	BDL	1.86	1.86	1.86	0.08		23.1	22	9.6	7.7
UT	GEOMEAN	1.19	1.52	2.0	1.5	2.85					
GEOMEAN (all sites and months combined)		water	sediment	oyster	veg	water qPCR					
Log		1.33	1.58	1.91	1.53	2.93					
Actual		21.2	37.7	81.7	34.2	847					

BDL= below detection limit; UT= Upper Tampa site; GEOMEAN=calculated geometric mean

Table S2. Geometric mean across sites by month for *V. vulnificus* detected by culture and by qPCR in all matrices.

Month	<i>V. vulnificus</i> concentration by culture (MPN/100mL or 100g)				qPCR (gene copies/100mL) water
	water	oyster	sed	veg	
January	BDL	2.17	1.39	1.12	2.90
February	1.45	BDL	2.27	1.66	3.19
March	1.09	2.02	1.18	1.20	2.94
April	BDL	1.74	1.24	1.13	1.35
May	1.42	2.48	1.86	1.69	4.41
June	2.13	2.48	1.97	2.58	4.58
July	1.47	2.81	1.77	1.77	4.47
August	1.50	1.57	1.48	1.63	4.43
September	1.44	1.97	1.63	2.03	4.85
October	1.14	1.93	2.19	1.50	3.07
November	1.49	2.27	1.32	1.55	3.29
December	1.13	1.33	1.13	1.13	1.62

BDL= below detection limit; seasonal peak concentrations of *V. vulnificus* (May-July) are gray, as quantified by culture and qPCR

Figure S1. Correlations of site-specific salinity and *V. vulnificus* in water by qPCR (A, left panel; $P<0.0001$; $r=-0.547$) and in sediment by culture (B, right panel; $P=0.0004$; $r=-0.365$). Correlations of other matrices with salinity were not statistically significant.

